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(54) **AIR CLEANING AND STERILIZING DEVICE**

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(57) Abstract

**PURPOSE:** To effectively make sterilization, deodorization, and contaminated gas removal by feeding the contaminated air into an ozone process area, a bacteria-capturing filter with high performance and an ozone catalyst reaction area in sequence to sterilize with ozone, capture the bacteria component, and decompose excess ozone, and monitoring the discharge of excess ozone.

**CONSTITUTION:** Contaminated air is introduced from the opening section 4 of a hollow casing 2, the ozone generated by a ceramic ozone generator 1 is fed, and a bacteria film is destroyed by ozone. The contaminated air is fed to a minus ion generating electrode 6, then it is fed to a bacteria capturing high-performance filter 7 containing a sterilizing component. Bacteria are sterilized, captured, and removed. The air is fed to an ozone decomposing honeycomb layer 8 and an acid gas adsorbing honeycomb layer 9, the excess ozone is decomposed, and the acid gas is removed. The air is discharged from an opening 5 while the excess ozone is monitored by an ozone sensor 11 at a discharge port.

